No.



9800180

HHE UNIVERD STRATES OF AMERICA

TO ALL TO WHOM THESE PRESERIES SHALL COME:

1874 Technology Holding Company, LEG.

THEFE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR CONDITIONING IT REPOPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR USING IT IN PRODUCING A HYBRID OR REENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84) 22, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'SG 498 RR'

In Testimons Microst, I have hereunto set my hand and caused the seal of the Mont Mariety Protection Office to be affixed at the City of Washington, D.C. this ninth day of June, in the year two thousand and four.

Attest

genzen

Commissioner

Plant Variety Protection Office Agricultural Marketing Service intereman

U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE

SCIENCE AND TECHNOLOGY DIVISION - PLANT VARIETY PROTECTION OFFIC

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

The following statements are made in accordance with the Privacy Act of 1974 (5U.S.C. 552a) an the Paperwork Reduction Act (PRA) of 1995

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

(mstructions and interm	ation collection burden sta	fettieur ou teketze							
1. NAME OF OWNER		•			TEMPORARY D. EXPERIMENTA		OR 3. W	ARIETY NAME	
D&PL Technology Hol	ding Company, LLC				95-01			SG 498 RR	
4. ADDRESS (Street and No., or R.F.D.	No., City, State, and ZIP C	Code, and Country)	·	5. TELEPHONE (in	clude area code	9)		
PO Box 157 100 Main Street					(662	742-4141	PVPC	O NUMBER	
Scott, Mississippi 387 USA	72				6. FAX (include are	a code)		3800180	
USA					(662	742-3182	FILIN	IG DATE	
7. IF THE OWNER IS NOT A "PERSON ORGANIZATION (corporation, partne		8. IF INCORPORA STATE OF INC		`	9. DATE OF INCOR	RPORATION	4	/1/1998	
Limited Liability C	ompany	Delawa	ire		Febru	ary 29, 1996			
10. NAME AND ADDRESS OF OWNER Delta and Pine Land C Kelly Casavechia P.O. Box 157 Scott, MS 38772	, ,		T BOATON	. (list person	TISSO WIII 19091V9 CIII	paporoj	FE \$	ATE 4/1/199	<u>8</u>
11. TELEPHONE (include area code)	12. FAX (include area code	a)	13. E_M	ΔΙΙ			14. CROP KIND	ATE 3 /41 OC (Common Name)	,,,
TI. TEEE TISKE (IIISING GISG SSGS)	12.179 (morado aroa ood	7	10. 2_14.				11. 31131 1	(,	
(662) 742-4141	(662) 742	2-3182	kell	y.h.casave	chia@deltaandp	ine.com		Soybean	
15. GENUS AND SPECIES NAME OF C	ROP	16. FAMI	LY NAME (Bo	tanical)			17. IS THE VARII HYBRID?	ETY A FIRST GENERATION	NC
<u>Glycine</u>	<u>Max</u>		Legum	inosae				s X NO	
18. CHECK APPROPRIATE BOX FOR E instructions on reverse) a. X Exhibit A. Origin and Breeding b. X Exhibit B. Statement of Distinct C. X Exhibit C. Objective Description d. X Exhibit D. Additional Description S. X Exhibit E. Statement of the Bartery of the Bart	g History of the Variety ctness on of the Variety on of the Variety (Optional		·	CERTIFI	ED SEED? (See Se YES (If "yes", answe and 21 below)	ction 83(a) of th	e Plant Variety Pro	BE SOLD AS A CLASS C tection Ac f "no", go to item 22) JMITED AS TO NUMBER)F
f. X Voucher Sample (2,500 viable verification that tissue culture to		–			YES		XNO		
repository)						H CLASSES OF		EYOND BREEDER SEED	?
g. x Filing and Examination Fee (\$ States" (Mail to the Plant Varie		reasurer of the Unit	tec	. 🗆	FOUNDATION	REGISTE	RED	CERTIFIED	
22. HAS THE VARIETY (INCLUDING AN FROM THIS VARIETY BEEN SOLD, OTHER COUNTRIES? YES IF YES YES YES YES YES YES YES YES	DISPOSED OF, TRANSF NO - as of date of original a DATE OF FIRST SALE, DI	ERRED, OR USED upplication 3/27/98 SPOSITION, TRAN	IN THE U.S.	PROPERT X IF YES, (Y RIGHT (PLANT BR	EEDER'S RIGHT NO TE OF FILING	OR PATENT)?		
 The owners declare that a viable sam for a tuber propagated variety a tissu 	•	*				•	lance with such reg	gulations as may be applica	able, or
The undersigned owner(s) is(are) the and is entitled to protection under the					pelieve(s) that the va	riety is new, dis	tinct, uniform, and	stable as required in Secti	on 42,
Owner(s) is(are) informed that false r SIGNATURE OF OWNER	epresentation herein can j	eopardize protection		penaities. IRE OF OWNE	<u>*</u> B /	. /	<u>:</u>		
Agrina	1. Jyla		M	Mu	- 1/94	ki.			
NAME (Please print or type)	U		NAME (PI	ease print or t	/pe)				
Jeffrey M. Tyler				iam V. Hi	ıgie		· · · · ·		
CAPACITY OR TITLE	DATE	04-2004	CAPACIT	Y OR TITLE				DATE 02 - 05 -	nЦ
Soybean Breeder	102-1	JTOU	′ Vice	Preside	nt/Dir.of Res	earch		02.03.	<i>U</i> 7

Instructions 9800187

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Complete application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hyb variety at least 2,500 untreated seeds of each line necessary to reproduce the variety, or for tuber reproduced varieties verification that a viatin the sense that it will reproduce an entire plant) tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for \$2,70 (\$320 filing fee and \$2,385 examination fee), payable to "Treasurer of the United States See Section 97.6 of the Regulations and Rules of Practice.) Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfiled. Mail application and other requirements to Plant Varie Protection Office, AMS, USDA, Room 500, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initiated and dated. DO NOT I masking materials to make corrections. If a certificate is allowed, you will be requested to send a check paybable to "Treasurer of the United States" in the amoi of \$320 for issuance of the certificate. Certificates will be issued to owner, not licensee or ager

Plant Variety Protection Office Telephone: (301) 504-551€ FAX: (301) 504-5291

Homepage: http://www.ams.usda.gov/science/pvpo/pvp.htm

ITEM

- 18a. Give:
- (1) the genealogy, including public and commercial varieites, lines, or clones used, and the breeding metho
- (2) the details of subsequent stages of selection and multiplication
- (3) evidence of uniformity and stability; and
- (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identification.
- 18b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If t new variety is most similar to one variety or a group of realted varietie.
 - (1) Identify these varieties and state all differences objectively
 - (2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; a
 - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctnes
- 18c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as complete as possible to describe your variety
- 18d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. U comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disearesistance, etc.
- 18e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPI
- 19. If "Yes" is specified (seed of this variety be sold by variety name only, as a class of certified seed), the applicant MAY NOT reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant n change the choice. (See Regulations and Rules of Practice, Section 97.103).
- 22. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
- 23. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.
- 21. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)
- 22. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.

23. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

ROUNDUP READY cottom soybean (per applicant's authorization 2/10/2004)

These seeds are covered under U.S. Patents 5,633,435; 5,352,605; 5,530,196; 5,188,642; 4,940,835; 5,717,084; 5,728,925; and 5,804,425.

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner presentative during the life of the application/certificate. There is no charge for filling a change of address. The fee for filling a change of ownership assignment or any modification of owner's name is specified in Section 97.175 of the regulations (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority. For example, for agricultural a vegetable crops, contact: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center-East, Beltsville, MD 2070! Telephone: (301) 504-8089. http://www.ams.usda.gov/lsg/seed/is-sd.htm

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to repond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this collection of information is (0581-0055). The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U. S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audictape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

Washington, DC 20200-9410 of can (202) 720-9504 (voice and 100). USBN is an equal opportunity provider and employer.

S&T -470 (04-01) designed by the Plant Variety Protection Office with WordPerfect 6.0a. Replaces STD-470 (02-99) which is obsolete.

EXHIBIT A D & PL Technology Holding Company, LLC. SUREGROW SEED, INC.'S APPLICATION FOR:

SG 498 RR

ORIGIN AND BREEDING HISTORY

Summer	1993	Cross 93-270 made between CM 428 and the F ₁ from P9592 x [(DP 415 x 2384 (2) x 40-3-2)].
Winter	1993-94	· · · · · · · · · · · · · · · · · · ·
Summer-		1
Fall	1994	F ₂ advanced to the F ₄ by modified single seed descent. Each generation sprayed with Roundup [™] to eliminate Roundup [™] susceptible plants.
Winter	1994-95	F ₄ seed planted and F ₄ Roundup [™] tolerant plants harvested and threshed individually from cross 93-270.
Summer	1995	F ₅ plant rows grown at Scott, MS. Row 95-01771 was selected, composited and determined to be breeding true for characteristics described in "Exhibit C" of this application. There are no known variants.
	1996-97	95-01771 was yield tested as DPX 9747 RR. Breeder seed and Foundation seed increase was conducted in both Costa Rica and the U.S. using Roundup [™] herbicide over the crop to control weeds. DPX 9747 RR increased to 2148 bags of Foundation seed.
	1998	DPX 9747 RR was released as SG 498 RR. This variety has proved to be uniform and stable during the three years tested, 1995-1998. No variants were observed during these years.

EXHIBIT B

D&PL Technology Holding Company, LLC. SUREGROW SEED, INC. 'S APPLICATION FOR SG 498 RR (BT: 2/10/2004)

(BT: 2/10/2004)

STATEMENT OF DISTINCTNESS NOVELTY STATEMENT

To our knowledge, SG 498 RR most resembles CM 428. Differences include but are not restricted to the following:

- 1. SG 498 RR is tolerant to the herbicide Roundup[™] whereas CM 428 is susceptible.
- 2. SG 498 RR has tan pods and CM 428 has brown pods.

EXHIBIT C

PLANT VARIETY PROTECTION OFFICE BELTSVILLE, MARYLAND 2070S

OBJECTIVE DESCRIPTION OF VARIETY SOYBEAN (Glycine max L.)

NAME D	E OF APPLICANTIS) BPL Technology Holding Low Buregrow Sted Inc.		TEMPORARY DE 95-01771		98 RR	
		(87: 2/10/2004)	DPX 9747 RR			•
	RESS (Street and No., or R.F.D. No.		(c)		FOR OFFICIAL	LUSE ONLY
wor: 7	265 Highway 9 South P	a Box 157		PVPO	NUMBER	
(2004) ⁻⁽⁻		, Mississippi 3877.			980018	
Starre	se the appropriate response which answer is fewer than the number of characters ** are considered for the co	oct of boxes provided;	place a zero in th	e first box when nu	mber is 9 or less to	70 70
WILL	motivation is \$431139fc		<u> </u>			<u> </u>
1. SEE	1 - Spherical (L/W, L/T, and T/M	L u	[T] 2 = Spheric	al Flatteried (L/W rati	o> 1.2:L/T.ntlo=	< 1.21
	3 - Elongate (UT ratio > 1.2: T	/W = < 1.21	4 = Elonge	te Flattened (L/T ratio	> 1.2:TM > 1.2	j
' 2. SEEI	D COAT COLOR: (Mature Seed)					
	1 = Yellow 2 = Green	3 = Brown	4 = Black .	6 = Other (Specify)	4 + \$ + 1	
3 SEEC	D COAT-LUSTER: (Mature Hand S	helled Coods	<u> </u>			
	Some Costett. (mistare Hand S	usting Seed!			-	•
	1 - Dull ("Corsoy 79"; "Braxton")	2 - Shiny (Nebsoy	"; "Gasoy 17"]	· · ·		
4. SEED	SIZE: (Mature Seed)			· · · · · · · · · · · · · · · · · · ·		
1 4	Grams per 100 seeds				E	· · · · · · · · · · · · · · · ·
5. KILU	M COLOR: (Mature Seed)				<u> </u>	
6	1 = Buff 2 = Yellow	3 = Brown 4	-Graγ . 5-1e	rperfect Black	5 = Black 7 =	Other (Specify)
6. COTY	(LEDON COLOR: (Mature Seed)			<u> </u>	<u> </u>	
			en e	er en		
	1 - Yellow 2 - Green		-			
			<u> </u>	· .		·
7. SEED	PROTEIN PEROXIDASE ACTIVIT	TY:				
0	1 - Low 2 - High					
ت						•
s. SEED	PROTEIN ELECTROPHORETIC B	BAND:	· · · · · · · · · · · · · · · · · · ·			·
0	1 ~ Type A (SP1ª)	7 - Type 8 (SP1 ^b)	-		·	
HVPO	COTYL COLOR:					
	with Country			•		
2	1 = Green only ('Evans'; 'Davis') 3 = Light Purple below cotyledons 4 = Dark Purple extending to unito	UBeeson'; Pickett 71'1		otyledans (Woodword	n'; 'Tracy'†	
				•		
	LET SHAPE:	· .		·		
	LET SHAPE:					

11. LEAFLET SIZE:	
1 = Small ('Amsoy 71'; 'A5312') 3 = Large ('Crawford'; 'Tracy')	2 ~ Medium ("Corsoy 79"; "Gasoy 17")
12. LEAF COLOR:	
2 1 = Light Green (Weber'; 'York') 3 = Dark Green ('Gnome'; 'Tracy')	2 - Medium Green ('Gorgov 79); 'Braxton').
	1
* 13. FLOWER COLOR:	The state of the s
	White with purple throat:
* 14. POD COLOR:	
1 = Tan 2 = Brown 3 = Blac	:k
★ 15. PLANT PUBESCENCE COLOR:	
2 1 - Gray 2 - Brown (Tawny)	
16. PLANT TYPES:	
2 1 = Stender ('Essex'; 'Arnsoy 71') 2 3 = Bushy ('Gnome'; 'Govan')	- Intermediate ('Arncor'; 'Braxton')
★ 17. PLANT HABIT:	•
1 = Determinate ('Gnome'; 'Braxton') 2 3 = Indeterminate ('Nebsoy'; 'Improved Pelican')	= Semi-Determinate (Will')
★ 18. MATURITY GROUP:	
1-000 2-00 3-0 4	-1 5~II 6-III 7-IV 8-V
(87: 2/10/2004: Maturity subgroup = 9)	2 ~ fX 13 ~ X
K 19. DISEASE REACTION: (Ender 0 = Not Tested; 1 = Succeptibl	a; 2:= Resistanti
BACTERIAL DISEASES: * 2 Bacterial Pustule (Xanthomonas phaseoli var. sojensis	
# 0 Bacterial Blight (Pseudomonas glycinea)	- 1- 1- 1 - 15.
★	
FUNGAL DISEASES:	
* 0 Brown Spot (Septoris glycines)	ing the first of the second of
Frogeve Leaf Spot (Cercospora sojina)	
Race 1 Race 2 Race 3	Race 4 Race 5 1 Other (Specify)
O Target Spot (Corynespora cassiicola)	
Downy Mildew (Peronospora triloliorum var. manshu.	rical
Powdery Mildew (Microsphaera diffusa)	
* Brown Stem Rot (Cephalosporium gregatum)	
Stem Canker (Diaporthe phaseolorum var. caulivoral (BT: 2/5/2004 per applicant's request)	
- June 1	

19. DISEASE REACTION	18-4 Enter 0 - Not 17 Esta (21 - Siesepte)	(Contact)	0000100
FUNGAL DISEAS			9800180
Pod and ster	n Blight (Disportie pluseolorum var; so	jec)	and the state of the
Purple Seed :	Suin (<i>Ocreaspora kikuchii</i>)	; ;	
0 Rhizoctonia	Root Rot (Rhizoctonia solani)	,	
Phytophthor	Rot (Phytophthora megasperma vat. so	ojecl	
★ L Race 1	Race 2 Race 3	Race 4 Race	5 Race 6 Race 7
Race 8	Race 9 1 Other (Spec	i(y)	
VIRAL DISEASES:			
Bud Blight (1	obscco Ringspot Virus		
O Yellow Hossi	c (Bean Yellow Mossic Virus)		
* 0 Compea Moss	ic (Cowpea Chlorotic Virus)		
Ħ	lesn Pod Mottle Virus		
	Soybean Mosaic Virus)		
ر نے		•	
NEMATODE DISEA			
	Nematode (Heterodera glycines)		Race 14
★ [Race 1 [Race 2 1 Race 3	Race 4 1 Ottser	Specify Race 14
	ode (Hoplolsimus Colombus)	•	•
* 1 Southern Roo	t Knot Nematode (Meloidogyne incognit	ca)	
★ 0 Northern Roo	t Knot Nematode (Meloidogyne Hapla)	·	
1 Peanut Root I	(not Nematode (Meloidogyne arenaria)		·
0 Reniform Nea	natode (Rotylenchulus reniformis)		
OTHER DISE	ASE NOT ON FORM (Specify):		
	-		
. [PONSES: (Enter 0 = Not Tested: 1 = S	esceptible; 2 = Resistant)	
* O tron Chlorosis	on Calcareous Soit		
Other (Specif)	1		
21. INSECT REACTION:	Enter 0 = Not Tested; 1 = Susceptible; 2	2 = Resistant	
Mexican Bean	Beetle (Epilachna varivestis)		
2 Potato Leaf H	opper (Emposses fabaci		
Other (Specify	1		
22. INDICATE WHICH VA	RIETY MOST CLOSELY RESEMBLES	THAT SUBMITTED.	
CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant Shape	CM 428	Seed Coat Luster	CM 428
Leaf Shape	CM 428	Seed Size	CM 428
Leal Color	CM 428	Seed Strape	CM 428
Leaf Size	CM 428	Seedling Pigmentation	P9584 or Tracy

22. GIVE DATA FOR SUBMITTED AND SIMILAR STANDARD WARREN'S PAINT COMPANION DATA

VARIETY	NO. OF	LYNY -	CM PLANT	LEAFL	ET SIZE	SEED CON	TENT	SE€0 StZ€ G/100	NO.
	MATURITY	S∞ue-	HEIGHT	CM Migar -	CM Length	X Protein	× Oit	SEEDS	SEE021
SG 498 RR Submitted	120	1.5	69					15	<i>y</i> .
CM 428 Rame of Similar Variety	114	2.0	74					15	

TUBLICATIONS. USEFUL AS REFERENCE AIDS FOR COMPLETING THIS FORM:

- 1. Caldwell, B.E., ed. 1973. Sorbeans: Improvement, Production, and Uses. Amer. Soc. Agron. Monograph No. 16.
- 2. Buttery, B.R. and R.I. Buzzell, 1968. Peroxidase activity in seeds of soybean varieties. Crop Sci., 8: 722-725.
- 3: Hymovitt, T. 1973. Electrophoretic analysis of SBTI-A, in the USDA soybean germplasm collection. Crop Sci., 13: 420-421.
- 4. Payne, R.C. and L.F. Morrie. 1976. Differentiation of soybean cultivars by seedling pigmentation patterns. J. Seed Technol. 1: 1-19.

EXHIBIT D

D&P Technology Holding Company !LLE. SUREGROW SEED, INC. S APPLICATION FOR SG 498 RR (6T:2/10/2004)

ADDITIONAL DESCRIPTION OF VARIETY

SG 498 RR is an early group IV Roundup Ready^m selection composited in the F₅ generation from the cross CM 428 x [P9592 x (DP 415 x 2384 (2) x 40-3-2)]. It has medium plants with white flowers, tawny pubescence and tan pods at maturity. Seeds average 3000 per pound and are dull yellow with black hila. SG 498 RR is resistant to stem canker and is field tolerant to phytophthora root rot. It is susceptible to cyst nematodes, root knot nematodes and frogeye leaf spot.

SG 498 RR

PRODUCT SUMMARY SHEET

KEY FEATURES

Late Group IV with medium size plants Very excellent on medium to light soils Excellent on narrow rows Resistant to Stem Canker

PRODUCT DESCRIPTION

<u>Trait</u>	Phenotype
Relative maturity	4.9
Roundup Ready™	Yes
STS [®]	No
Flower color	White
Pubescence color	Tawny
Hilum color	Black
Podwall color	Tan
A 1 1 1	

Seed size Medium ~ 3100/lb

Seed protein Untested Seed oil Untested

Peroxidase reaction Negative and Positive

Seedcoat luster Dull

Hypocotyl color Green with Bronze Seed shape Spherical flattened

Leaflet size Small

Leaflet color Medium green

Canopy Medium

Growth habit Short Indeterminate

SCN race 3 Susceptible SCN race 14 Susceptible Common root knot Susceptible Peanut root knot Susceptible Javanese root knot Susceptible Lance nematode Untested Frogeye leafspot Susceptible Sudden death Untested Stem canker Resistant Phytophthora root rot Field tolerant Red crown rot Untested Chloride tolerance Tolerant SMV Susceptible Aerial Blight Untested

BREEDER'S SUBJECTIVE RATINGS

Narrow rows Excellent Wide rows Good No-till Excellent Late planting Very Good Early planting Very Good Poorly-drained soils

Very good if drilled

Shatter resistance Excellent

PRODUCT IDENTITY

Line selected by:

Dr. Grover Shannon

Suggested name: Former designation: SG 498 RR

Pedigree:

DPX 9747 DP 3478 * P9592 *

[[DP415*(2384(2) *40-3-2)]

Areas of adaptation:

From US 82 and North

Replace:

Complement: Main competition:

S51-71, RA 452

Most similar line:

YIELD HISTORY

See State Test Results

KNOWN WEAKNESSES

Lacks Nematode Resistance

Can be too short if grown on tough soils in wide rows

SEED STOCK STATUS

ADDITIONAL DESCRIPTION

Offtypes of each of the following traits may be exhibited in up to 1% of the plants of this variety: flower color, pubescence color and hila color.

U.S. DEPARTMENT OF AGRICULTURE		
AGRICULTURAL MARKETING SERVICE	Application is required in order to dete certificate is to be issued (7 U.S.C. 24.	
EXHIBIT E	confidential until the certificate is issue	
STATEMENT OF THE BASIS OF OWNERSHIP		<u> </u>
1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
D&PL TECHNOLOGY HOLDING COMPANY, LLC.	95-01771	SG 498 RR
	DPX 9747 RR	
 ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country) 	5. TELEPHONE (Include area	6. FAX (Include area code)
	code) 662.742.4141	662.742.3182
P.O. BOX 157 SCOTT, MISSISSIPPI 38772		.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
30011, WI331331FF1 30772	7. PVPO NUMBER	
	9800180	
Does the applicant own all rights to the variety? Mark an "X" in the	he appropriate block. If no, please expla it	ı. Ç
•		
•		
Is the applicant (individual or company) a U.S. national or a U.S.	based company? If no, give name of co	untry. YES
	, , , ,	X
Is the applicant the original owner? YES	NO 16 ma miles a manual and a	£ 41 £-11
b. Is the applicant the original owner?	NO If no, please answer <u>one</u> o	r the following:
·		
a. If the original rights to variety were owned by individual(s), is	1	• •
YES	NO If no, give name of country	
b. If the original rights to variety were owned by a company(ies) is (are) the original owner(s) a LLS has	nd cominany?
YES	NO If no, give name of country	
 Additional explanation on ownership (If needed, use the reverse 	e for extra space):	
		•
SG 498 RR contains a proprietary gene, paten	ted by the Monsanto Company	and licensed to D&PL,
SG 498 RR contains a proprietary gene, patent which encodes a protein which provides tolera	ted by the Monsanto Company ance to glyphosate herbicide i	, and licensed to D&PL, n soybean cultivars.
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which encodes a protein which provides tolerated to the owners (not licent and variety protection can only be afforded to the owners (not licent the rights to the variety are owned by the original breeder, that provided to the variety are owned by the original breeder, that provided to the variety are owned by the original breeder, that provided to the variety are owned by the original breeder, that provides to the variety are owned by the original breeder, that provides to the variety are owned by the original breeder, that provides to the owners (not licent the owners).	ance to glyphosate herbicide in the second s	n soybean cultivars.
which encodes a protein which provides toleral LEASE NOTE: ant variety protection can only be afforded to the owners (not licen If the rights to the variety are owned by the original breeder, that protection of a country which affords similar protection to nationals of	nsees) who meet the following criteria: person must be a U.S. national, national of the U.S. for the same genus and specie	a UPOV member country, or
which encodes a protein which provides toleral EASE NOTE: ant variety protection can only be afforded to the owners (not licer If the rights to the variety are owned by the original breeder, that protection are country which affords similar protection to nationals of the rights to the variety are owned by the company which employed the rights to the variety are owned by the company which employed nationals of a UPOV member country, or owned by nationals of a	nsees) who meet the following criteria: person must be a U.S. national, national or of the U.S. for the same genus and specie	f a UPOV member country, or s. must be U.S. based, owned by
which encodes a protein which provides tolerated to the owners (not licentary protection can only be afforded to the owners (not licentary protection).	nsees) who meet the following criteria: person must be a U.S. national, national or of the U.S. for the same genus and specie oved the original breeder(s), the company country which affords similar protection to	f a UPOV member country, or s. must be U.S. based, owned by nationals of the U.S. for the same
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EXHIBIT E

OF: 2/10/2003 SCREGROW SEED INC. S APPLICATION FOR SG 498 RR

STATEMENT OF APPLICANT'S OWNERSHIP

SG 498 RR was originated and developed by Grover Shannon, Ph.D., soybean breeder, Delta and Pine Land Company, dba Deltapine Seed. By agreement between employee and Delta and Pine Land Company, all rights to any invention or discovery are assigned to the Company. No rights to any invention or discovery are retained by the employee.